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Health education: A Rogerian concept analysis

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ABSTRACT

Objectives: The concept of health education has traditionally focused on enabling people to change unhealthy behaviours and lifestyles. Although, at the theoretical level, there exist definitions of the concept, it remains complex and ambiguous. Furthermore, nurses often confuse the concept with other related terms, such as health information or health promotion. The aim here is to report a concept analysis of health education and elucidate a current definition.
Design: Rodgers' evolutionary concept analysis.
Data sources: A systematic search was conducted using PubMed and CINAHL for articles written in English or Spanish, published between 1986 and 2017. A manual search was performed, and grey literature was also reviewed. A pre-determined template of study inclusion-related questions assisted the process.
Review methods: Rodgers' evolutionary method guided the narrative analysis. The attributes of health education, as well as its antecedents, consequences, related terms and contextual bases were extracted and synthesized.
Results: Based on the review of 31 studies on health education, the attributes are a learning process, health-oriented, multidimensional, person-centred and partnership. The antecedents are professional awareness of health education, training of health professionals, available resources, individual's willingness to act, and health as an individual's priority in life. The consequences are the increase in knowledge, skills and/or attitudes; change in health-related behaviours, individual capability and empowerment; positive health outcomes; and positive social/economic impact. The related terms are health information, patient education, counselling, health coaching and health promotion. Health education is defined as a continuous, dynamic, complex and planned teaching-learning process throughout the lifespan and in different settings that is implemented through an equitable and negotiated client and health professional 'partnership' to facilitate and empower the person to promote/initiate lifestyle-related behavioural changes that promote positive health status outcomes. Health education takes into account individuals'/groups' internal and external factors that influence their health status through potentially improving their knowledge, skills, attitudes and beliefs in relation to their health-related needs and behaviour, within a positive health paradigm.
Conclusions: The theoretical definition and conceptual framework provided in this study contribute to and extend the current knowledge base among nurses and other health care providers. The findings elucidate the clinical role of health educators, enabling them to identify the realities of its practice, building a common reference point, and highlighting the main recommendations for its use at the clinical, education, policy and research interface.

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What is already known about the topic?

- Health education is essential in promoting people's health and self-management through a variety of different clinical and community contexts and settings and should be a core role of nurses and other health-related professionals.
- Despite well-known early definitions of health education, the concept has undergone transformation over time. Subsequently, there is current general confusion about its meaning and application.

What this paper adds

- An up-to-date, comprehensive operational definition of health education has been developed.
- The analysis, identification and illustration of attributes and temporal and contextual bases elucidate clinical nurses' role as health educators, enabling them to effectively implement it into their practice.
- The framework provided may guide the content of training programmes focused on health education competence and of instruments to measure nurses' knowledge, attitudes and skills.

1. Introduction

Chronic illnesses, such as cardiovascular and respiratory diseases, cancer and diabetes, are the leading cause of disability and are responsible for nearly 36 million deaths worldwide (World Health Organization [WHO], 2017); this number is expected to increase to 55 million by 2030 (WHO, 2013). Up to 80% of cases of heart disease, stroke, and type 2 diabetes and over one-third of cancers could be prevented by eliminating shared modifiable risk factors. These risk factors are mainly tobacco consumption, an unhealthy diet, physical inactivity and the harmful use of alcohol (WHO, 2008). Health education is a valuable tool that all health professionals, with the correct training and education, can use to enable and support people to live healthier lives (Glanz et al., 2008; Institute of Medicine, 2001; WHO, 2012).

The concept of health education has evolved over time (Green et al., 1980; Tones et al., 1990; Whitehead, 2004; WHO, 2012). This conceptual progress has had an important impact on the nursing literature and clinical practice. Despite the notable theoretical paradigm shift over time, nurses still often associate health education as being only directed toward the alteration of illness, disease and disability states rather than a means to enable or maintain well-being and positive health states (Diaz-Valencia, 2012; Khoury et al., 2015; Piper, 2008; Rotegård et al., 2010; Salci et al., 2013). Consequently, it is widely reported that nurses often fail to understand the concept and practice of health education, considering it complex and ambiguous (Diaz-Valencia, 2012; Piper, 2008; Whitehead and Russell, 2004). It has been reported that nurses confuse the term with other related terms such as health information, health promotion and patient education (Guzys et al., 2017; Khoury et al., 2015; Whitehead, 2011a). This fact hinders its operationalization at the theoretical level and, consequently, impacts the potential benefits at the clinical interface (Diaz-Valencia, 2012; Salci et al., 2013). Explicit conceptualization helps to move towards a more precise meaning and role clarity and identify a baseline to validate current practice (Whitehead, 2004,2011a).

2. Background

The term 'health education' first appeared in the modern scientific literature in 1919, identifying individual factors as the main cause of infectious diseases (Diaz-Valencia, 2012; Polaino-Lorente, 1987). In 1978, the international Alma Ata Conference (WHO, 1978), consolidated by the Ottawa Charter for Health Promotion in 1986 (WHO, 1986), defined health education as a state of welfare where individuals actively seek to determine and increase their personal health status and not just seek to prevent or abolish illness, disease or disability (Glanz et al., 2008). Health education is focused on enabling people to increase control over their health (Salci et al., 2013; Whitehead and Russell, 2004).

Despite past, recent and ongoing theoretical work (Green et al., 1980; Tones et al., 1990; Whitehead, 2004; WHO, 2012), translating an evolving definition of health education into practice remains challenging (Whitehead, 2004, 2008). Establishing a benchmark around how health education is conceptualized is essential to facilitate its practical application in nursing care.

The aim of this paper is to clarify the concept of health education and provide an operational definition.

3. Methods

3.1. Rodgers' evolutionary method

Rodgers' concept analysis was used to analyse the terms of health education (Rodgers and Knafl, 2000). This evolutionary method is particularly appropriate given the changes the concept has undergone over the last few decades, its dynamic nature and its adaptability according to the setting and situation in which it is applied. Rodgers' method includes six steps that are listed sequentially, but they are actually developed in an iterative way: (i) identify the concept of interest including its historical perspective and conceptual evolution for a deeper understanding (introduction and background section); (ii) identify and select the appropriate realm setting, sample and data sources for data collection (method section); (iii) collect relevant data to identify the attributes of the concept, temporal basis including antecedents and consequences, related concepts (results section), and contextual basis including uses by discipline and context (discussion section); (iv) analyse and summarize the data regarding the characteristics of the concept (results and discussion section); (v) identify an example of the concept (results section); and (vi) identify implications for further development of the concept (integrated into the discussion and conclusion section) (Rodgers and Knafl, 2000). The step-wise framework was slightly adapted in that the elicitation of a definition of the concept, characteristic of Walker and Avant's method that considers terms to be cognitive constructions, was added (Tofthagen and Fagerstrøm, 2010).

3.2. Collecting the data — the critical literature search process

The search was systematically conducted using the PubMed and CINAHL bibliographical databases. Rodgers' guide to conducting a literature search provided a framework for the review (Rodgers and Knafl, 2000). Thus, the terms "health education" and "nurs*" were combined using Boolean logic within the title/abstract of relevant journals. The review was focused on nursing due to its size and frequent encounters with persons and families with regard to the presented opportunities to initiate health education (Rodgers and Knafl, 2000; Taub et al., 2009). Terms used interchangeably with health education were not identified in advance, as the exploration of surrogate terms was conducted at a later step in the process. Search limiters were language (English or Spanish) and publication dates (January 1986 to November 2017) to facilitate an overview of the use of the concept over a historical timeline. The starting point of 1986 was selected as being when the Ottawa Charter for Health Promotion was released. Accompanying the process, the authors used a pre-determined template of inclusion-

related questions to assist the search. 1) Does the article aim to address, determine and/or clarify health education as a term? 2) Does the article have the potential to elucidate the characteristics, antecedents, consequences or contextual base of health education? 3) Does the article elaborate on and align related terms of health education?

Fig. 1 illustrates the PRISMA literature search flowchart. A total of 3254 articles from PubMed and 1986 from CINAHL were initially obtained. After duplicates were removed, titles and abstracts were reviewed aligned to the inclusion criteria questions. This approach led to 398 abstracts and titles that met the inclusion question criteria that were reviewed collectively by the study team. This process narrowed it down to 137 articles, where full-text versions were obtained. The study team collectively reviewed and appraised this corpus of literature until agreement was reached as to the most relevant 'key' articles to inform the concept analysis (n = 18). Key article literature lists were assessed, and they identified four further key journal articles not found in the database searches and eight books. Searching the grey literature identified one organizational document (WHO, 2012). Finally, 31 documents were included.

3.3. Analysing the literature: extraction and analysis

Each key study was analysed to determine notable attributes, temporal bases (antecedents and consequences), related and surrogated terms and contextual bases (use by context and discipline) (Rodgers and Knafl, 2000). Attributes were identified as the characteristics that explain and constitute the definition of the health education concept. Antecedents and consequences were recognized in the text as those events or aspects that occur before and after health education takes place in a practical situation, respectively. Related terms were identified as the concepts that share some attributes with health education but do not possess all of the required characteristics. Surrogate terms are those that express the health education's ideas through other words, meaning that they shared all of health education's attributes. Finally, uses of the concept were extracted as the information that illustrates the practice of health education in the nursing discipline context (Rodgers and Knafl, 2000).

To facilitate the content-analysis process, Rodgers' 'helping questions' were used, and findings from each study were matrix-organized and aligned to specific categories. Patterns repeated throughout the texts were identified, recurring categories were coded, and connections between these codes/categories were established to create more general themes. Data saturation was deemed to have been achieved when no new data emerged and any supplementary data indicated a totality in and between antecedents, attributes and consequences (Rodgers and Knafl, 2000). Expert member-checking took place throughout the analytical process to facilitate consensus and clarify any ambiguities or discrepancies as well as to validate the final results. Table 1 shows how the selected articles contribute to clarifying the health education concept. Based on these findings, a definition of health education was created and crafted.

4. Results

4.1. Definition of health education

Based on the preceding analysis, the following definition of health education emerged: health education is a continuous, dynamic, complex and planned teaching-learning process throughout the lifespan and in different settings that is implemented through an equitable and negotiated client and health professional 'partnership' to facilitate and empower the person to promote/initiate lifestyle-related behavioural changes that promote positive health status outcomes. Health education takes into account individuals'/groups' internal and external factors that influence their health status through potentially improving their knowledge, skills, attitudes and beliefs in relation to their health-related needs and behaviour, within a positive health paradigm. Fig. 2 highlights the essential components of health education.

4.2. Attributes of health education

From the 31 studies analysed, five main attributes were uncovered: learning process, health-focused, multidimensional, person-centred and partnership. Each of them is explained below.

4.2.1. Learning process

From the key studies, 17 out of the 31 identified learning process as a formal attribute of health education (Table 1). The process is viewed as a complex, continuous and dynamic entity (Perea, 2009; Pérez and Echauri, 2013). It involves a person's voluntary change in

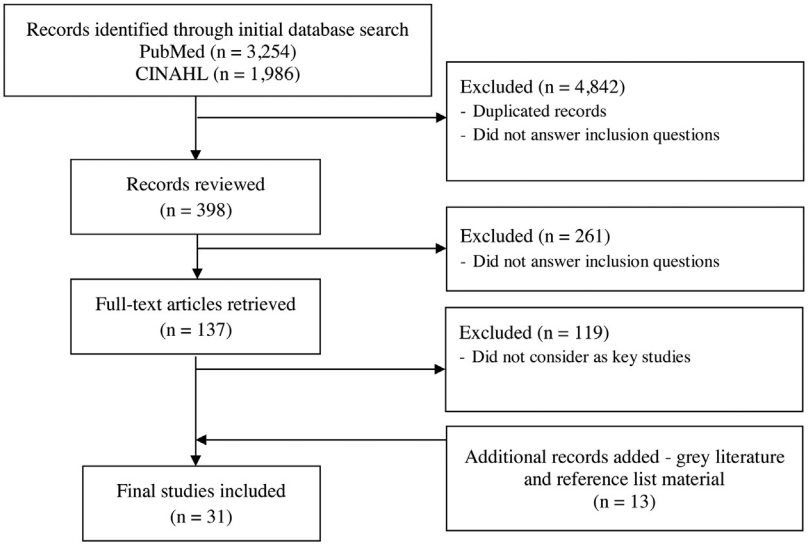

Fig. 1. PRISMA literature search flowchart.

Table 1
Identification of concept analysis categories in health education studies over time.

STUDIES	Attributes					Related terms[a]					Antecedents/ consequences	Uses by context/ discipline
	Learning process	Health-focused	Multidimensional	Person-centred	Partnership	HI	PE	C	HC	HP		
Guzys et al. (2017)	✓	✓	✓	✓						✓	✓	
Schoberer et al. (2016)	✓	✓		✓	✓			✓	✓		✓	✓
Camillo et al. (2016)	✓	✓	✓	✓	✓						✓	✓
Pueyo-Garrigues et al. (2016)			✓	✓							✓	✓
Bezerra (2014)		✓	✓	✓	✓						✓	✓
Buchbinder et al. (2014)								✓			✓	✓
Pérez and Echauri (2013)	✓		✓	✓	✓					✓	✓	✓
Salci et al. (2013)		✓	✓	✓	✓					✓		✓
Diaz-Valencia (2012)	✓	✓	✓	✓	✓	✓					✓	✓
WHO (2012)	✓	✓	✓	✓						✓	✓	✓
Whitehead and Irvine (2011)											✓	✓
Taub et al. (2009)										✓	✓	✓
Perea (2009)	✓	✓	✓	✓	✓					✓	✓	✓
Costa & Lopez (2008)	✓	✓	✓	✓	✓					✓	✓	✓
Piper (2008)				✓	✓					✓	✓	✓
Glanz et al. (2008)	✓	✓	✓	✓	✓					✓	✓	✓
Whitehead (2008)	✓	✓	✓		✓					✓	✓	
Kann et al. (2007)		✓	✓	✓							✓	✓
Pérez et al. (2006)	✓		✓	✓	✓	✓				✓	✓	
Whyte et al. (2006)				✓							✓	✓
Whitehead (2004)		✓								✓	✓	✓
Whitehead and Russell (2004)			✓	✓						✓	✓	✓
Campbell (1999)	✓		✓	✓	✓			✓			✓	✓
Van Ryn and Heaney (1997)			✓	✓	✓						✓	✓
Feste and Anderson (1995)	✓	✓	✓	✓	✓						✓	
Fahlberg et al. (1991)		✓	✓	✓	✓			✓			✓	
Tones et al. (1990)	✓	✓	✓							✓	✓	✓
Salleras (1988)	✓	✓	✓	✓	✓		✓			✓	✓	✓
Nolde and Smillie (1987)			✓	✓	✓							✓
Polaino-Lorente (1987)	✓		✓		✓			✓			✓	✓
Hamburg (1986)	✓	✓	✓	✓	✓		✓				✓	✓
TOTAL n = 31	17	18	24	24	20	2	2	5	1	15	29	26

[a] HI= Health Information; PE = Patient Education; C = Counselling; HC= Health Coaching; HP= Health Promotion.

their health-related behavioural patterns based on their experiences and/or the experiences of others. A prerequisite of this attribute is that prior education is necessary. The educational input, for learning to take place, is a planned and intentional process facilitating the active participation of the person in their health-related learning and the incorporation of a person's knowledge base, attitudes, beliefs and skills (Glanz et al., 2008; Pérez et al., 2006; Salleras, 1988; Whitehead, 2008).

4.2.2. Health-focused

This attribute was identified in 18 of the 31 studies. It is based on the positive definition of health as a state akin to complete

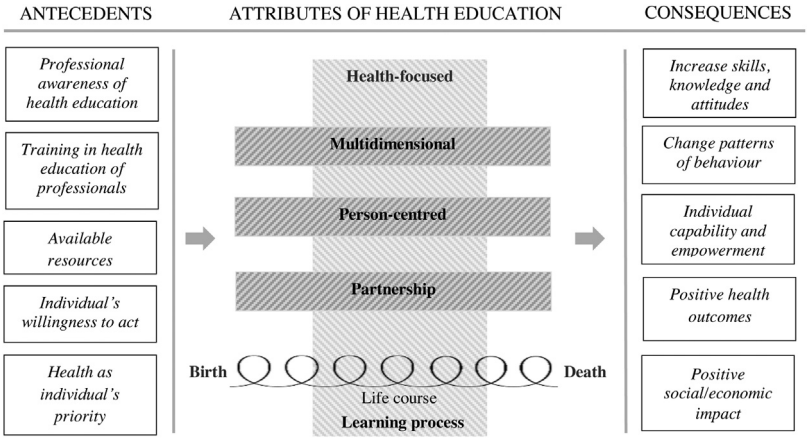

Fig. 2. Conceptual model of health education.

physical, social and mental well-being and not merely the absence of disease (WHO, 2012). Aligned with this, a health-focused trajectory is supported by the notion of health as a dynamic and fluid continuum of health-related peaks and troughs that fluctuate throughout the normal process of the lifespan (Salci et al., 2013; Schoberer et al., 2016). Therefore, health-focused health education acknowledges the person's health journey along a fluctuating timeline, including healthy and unhealthy transition periods (Perea, 2009).

4.2.3. Multidimensional

From the key studies, 24 out of the 31 identified multidimensional as a formal characteristic of the health education term. It refers to the need to take into account personal/social behaviour-influencing factors that are indispensable for building and enhancing people's ability to deal with different situations (barriers and enablers) related to their health status (Bezerra, 2014; Hamburg, 1986; Pérez et al., 2006; Van Ryn and Heaney, 1997; Whitehead, 2008; WHO, 2012). Intrapersonal factors in the literature include biological aspects and three other sub-streams: cognitive including knowledge and cognitive abilities; emotional encompassing beliefs, attitudes, values and feelings; and personal aptitude related to social abilities, resilience and personal capacity (Camillo et al., 2016; Pérez et al., 2006; Salleras, 1988). Other related external factors include a close social environment and resource and support structures (Camillo et al., 2016; Kann et al., 2007; Nolde and Smillie, 1987; WHO, 2012).

4.2.4. Person-centred

Of the 31 reviewed studies, 24 identified this as an attribute of health education. It relates to being sensitive to the uniqueness of individuals within the health education encounter. It implies working "from where each person is" and adapting to what the individual perceives as their specific health needs aligned to their experiences and abilities. It is based on the premise that people often recognize their own realities and capabilities through personal insight (Bezerra, 2014; Schoberer et al., 2016; WHO, 2012). Therefore, a person-centred approach derives from the needs of the individual who is the focus of the client/health professional relationship (Campbell, 1999; Guzys et al., 2017; Salci et al., 2013). The client determines at what point the relationship commences and at what point it ends.

4.2.5. Partnership

Twenty of the 31 studies identified partnership as a key attribute. It is an important context that complements a person-centred approach. Partnership exists as an active and collaborative process, underpinned by the principles of respect, autonomy, voluntarism, freedom of choice, and equity (Pérez and Echauri, 2013; Salci et al., 2013). Partnership involves an ongoing personal contact to establish a co-responsibility to achieve and maintain agreed upon health objectives (Feste and Anderson, 1995; Salci et al., 2013). The health professional is a conduit for increasing awareness, self-confidence, self-esteem, self-efficacy, and supporting self-informed choices about the adoption of health-related lifestyles (Camillo et al., 2016; Fahlberg et al., 1991; Piper, 2008).

4.3. Model case

Paul, 27 years old, is in his second post-operative day after being operated on for a cruciate ligament reconstruction. He is a sportsman and social smoker. The nurse takes advantage of the encounter to promote smoking cessation. She starts a conversation in which she shows interest in his current state of health and life history, sharing experiences. The nurse asks him about his smoking habits, social environment, health knowledge, etc. and identifies some 'risky' beliefs. The nurse offers him appropriate knowledge and advises smoking moderation/cessation, asking if he wants to quit smoking. To motivate him, she highlights the benefits for his health, emphasizing his sporting life, as well as the economic benefits. Paul says he has never thought about it, and he does not see himself as having sufficient strength to quit because many of his friends and family smoke. The nurse sends him a motivating message, gives him a self-help lifestyle advice and smoking cessation package (as well as useful support contact numbers and websites/support forums) and mentions the possibility of attending primary health care-based community individual/group support.

This case is an example of health education containing all of the defining attributes: the health-focused approach is reflected in how the nurse identifies an opportunity to improve the young person's health, even if he does not have a tobacco-related health problem. The learning process is presented in how the nurse plans and initiates supportive education to promote behavioural change, as well as community-based support groups and organizations. The partnership is shown in the nurse's facilitating role, with a positive attitude, sharing their life experiences, not being 'punitive' and appreciating the complexity of behavioural modification and, overall, creating a climate of trust. Finally, the multidimensional and person-centred attributes are reflected in the nurse's assessment, addressing the likely factors best targeted to influence change. Based on the analysis of the educational needs, the nurse carries out the brief intervention representative of the real situation of the person within the time constraints of the encounter.

4.4. Antecedents and consequences

Adhering to Rodgers' evolutionary method, the selected literature was reviewed to identify the antecedents and consequences of health education: events that precede and follow the occurrence of the concept, respectively (Rodgers and Knafl, 2000).

Five antecedents were identified:

Professional awareness of health education refers to the fact that health care providers need to be aware that individual drivers (internal and external), often outside the control of individuals, determine the cause, nature and prevalence of any negative health status. Health professionals need to be conscientious of the place of effective education that addresses individual factors and social determinants of health (Polaino-Lorente, 1987).

Educating and training health professionals relates to the need for the health care professional to be well trained, prepared, knowledgeable and a confident practitioner when tackling complex health education activities with clients (Bezerra, 2014). There is a responsibility that lies with effective integration of health education within the health professional curricula (Whitehead, 2008), providing the needed knowledge, skills, motivation and self-confidence to be competent (Buchbinder et al., 2014; Pérez et al., 2006; Schoberer et al., 2016; Whitehead, 2004).

Available support and resources: the literature clearly identifies that health education interventions, to be effective, need to be well planned, resourced, supported and evaluated (Buchbinder et al., 2014; Pérez and Echauri, 2013; Whyte et al., 2006).

An individual's willingness to act/change means that health care professionals need to clearly understand a clients' capacity, capability and willingness to develop personal health skills before implementing health education interventions (Bezerra, 2014; Buchbinder et al., 2014; Camillo et al., 2016; Whitehead and Irvine, 2011).

Health as an individual's priority in life: it is assumed that individuals value and prioritize their health as important, and therefore, it is reasonable for the professional to act on this premise

(Buchbinder et al., 2014; Whitehead, 2004). However, in many cases, individuals prioritize other determinants, i.e., education, income, personal safety, community, etc., until their health status is negatively impacted (Guzys et al., 2017).

Five consequences were also identified:

Increased health literacy and knowledge, skills and/or attitudes towards a positive health status (Campbell, 1999; Guzys et al., 2017; Kann et al., 2007; Piper, 2008; WHO, 2012).

Notable change of health behaviour patterns including those who are at high risk or have existing lifestyle-related disease, illness or disability (Guzys et al., 2017; Pérez and Echauri, 2013; Whitehead, 2004).

Increased individual capability and empowerment, promoting better control of social situations and surroundings and a greater awareness in terms of making informed health choices (Costa and López, 2008; WHO, 2012).

Positive reactive/preventative health outcomes, ranging from better adherence to treatments and coping with ongoing disease, illness and disability (Feste and Anderson, 1995; Glanz et al., 2008; Pérez and Echauri, 2013) to improved decision-making, capacity, autonomy, self-esteem, self-confidence, satisfaction, perceived better quality of life and well-being related to place and community (Hamburg, 1986; Glanz et al., 2008; Pérez and Echauri, 2013; Schoberer et al., 2016).

Positive social/economic impact refers to positive health impact at the individual, institutional and community levels through a reduction of 'acute' services related to issues such as hospital admission, lower use of medications, comorbidities, etc. (Glanz et al., 2008; Pueyo-Garrigues et al., 2016).

Finally, health education that fails to recognize and incorporate the preferences and priorities of individuals and groups runs a very high risk of being ineffective (Whitehead, 2004).

4.5. Related terms

From the selected articles, five terms that are used interchangeably with health education concepts were identified: health information, counselling, patient education, health coaching, and health promotion (Khoury et al., 2015; Olsen, 2014; Taub et al., 2009; Whitehead, 2004). Table 2 highlights the attributes shared with health education.

Different authors define health information as the unidirectional knowledge provided to patients about their health conditions, its impact on their lifestyle, and options to manage perceived and actual health threats (Piredda, 2004; Wagner and Bear, 2009). Where health education interventions focus on the cognitive domain, the focus shifts to a bidirectional interaction of health communication through exploring whether the person is prepared to receive new knowledge and/or whether they understand the delivered health-related messages (Diaz-Valencia, 2012; Piper, 2008). Regarding patient education, it is defined as a planned process of activities designed to enable those with existing illness, disease and disability to improve knowledge, attitudes and skills to restore, maintain or improve their existing condition through their active and voluntary participation (Piredda, 2004). It encompasses a patient-professional interrelationship, where patient's educational needs, preferences and personal-social factors are assessed (Piredda, 2004; Salleras, 1988). However, patient education does not adopt a health focus, but rather the emphasis is on illness, acute or chronic conditions (Piredda, 2004).

Counselling is defined as a purposeful partnership that empowers individuals to achieve a satisfactory resolution of "problems in living" and to accomplish mental health, wellness, education and career goals (McLeod, 2013). The approach identifies personal, social-environment, and economic factors of clients to solve the actual problem (Campbell, 1999; Polaino-Lorente, 1987). This related term only shares partnership, multidimensional and person-centred attributes because it implies interventions focused on resolving problems that are not necessarily related to health but that are the person's felt needs (McLeod, 2013). With regard to health coaching, it is a more recent approach that is not currently as well defined as other related terms. Health coaching is explained as "a goal-oriented, client-centred partnership that is health-focused and occurs through a process of client enlightenment and empowerment" (Olsen, 2014, p. 24). Its main objective is to activate a patient's own motivation for resolving their ambivalence about health behaviour change and for achieving objectives that enhance quality of life and health (Olsen, 2014).

Finally, health promotion as a related term is defined as a global socio-political process that includes a set of actions at the individual level, to promote healthy lifestyles, and at the intersectorial level, to influence social, political, environmental and economic determinants to increase the health of people, which may also act at the individual level (Whitehead, 2004; WHO, 2012). Health promotion, however, has a population/community health orientation, while health education is a strategy to act at the individual level though an interpersonal relationship to increase individual control over one's health (Salci et al., 2013; Whitehead, 2008; WHO, 2012). Health education is an integral part of many health promotion programmes and, subsequently, is often used interchangeably when presenting health education. However, it is mainly where we see health and public health policy interact at the individual level that the mixing of the terms is the most appropriate (Whitehead, 2011a).

5. Discussion

The findings from this concept analysis reflect that health education is a complex term. In spite of efforts to enhance and further its theoretical development, there is limited literature that seeks to breakdown the term into related attributes (Table 1). The proposed definition draws upon previously identified definitions from Green et al. (1980), Tones et al. (1990) and Whitehead (2004) to extend and update the term. First, the new definition highlights the lifespan vision of the learning process. It is characterized, on the one hand, by its complexity because of the interaction of

Table 2
Shared attributes of health education concept and its related terms.

Terms	Attributes				
	Learning process	Health focus	Multidimensional	Person-centred	Partnership
Health education	✓	✓	✓	✓	✓
Health information					
Patient education	✓		✓	✓	✓
Counselling			✓	✓	✓
Health coaching		✓		✓	✓
Health promotion		✓	✓		

cognitive/intellectual, psychological and social dimensions to generate positive changes in a person's life. On the other hand, it is also characterized by its dynamism because the process is continuous throughout an individual's life course and is recurrent and constantly evolving (Costa and López, 2008; Perea, 2009; Whitehead, 2011b). The updated meaning also emphasizes a bidirectional partnership that contemplates an individual's own felt health needs and the related environmental factors that influence modifiable behaviour patterns. Fig. 2 identifies that this study also adds 'health-focused' as an essential attribute that helps to bridge the health promotion/health education impasse and 'health coaching' has been added.

The contextual base of the health education literature revealed a wide variety of settings where it is applied — such as primary health care, hospitals, workplaces, schools, and communities — with health care/service settings featuring prominently (Bezerra, 2014; Camillo et al., 2016; Pueyo-Garrigues et al., 2016; Whitehead and Irvine, 2011; Whitehead, 2011b). Health educational activities are integrated into the multidisciplinary role of many health care providers such as physicians, pharmacists and health psychologists. However, the literature identifies nurses as the main group of health professionals using health education (Glanz et al., 2008; Nolde and Smillie, 1987; Schoberer et al., 2016; Taub et al., 2009). From a philosophical viewpoint, this could be explained by the nature of the discipline where 'care' is framed in an interpersonal relationship that illustrates the qualities of being person-centred and forming a partnership (Watson, 2008). Furthermore, nurses are in the best position to address health educational needs because they are in constant contact with both healthy and ill people throughout their life course (Buchbinder et al., 2014; Kann et al., 2007; WHO, 2012) and the fact that nurses are the largest workforce among health care providers (Whitehead and Irvine, 2011). This fact further emphasizes the importance of the nursing profession in leading the need to clarify the discourse and position of important terms and activities, with health education being one of them (Whitehead and Irvine, 2011). Wider multidisciplinary use and practice of a clearly defined health education concept is more likely to lead to health professionals adopting it as part of their disciplinary philosophy (Tofthagen and Fagerstrøm, 2010). It also contributes to international variations in the use and application of health education strategies. For instance, in North and South America, health education encompasses broader inter-sectoral strategies more aligned to medicalized public health programmes (Taub et al., 2009). Currently, health education also has multiple multidisciplinary theoretical foundations within differing disciplines, such as within the health communication and health psychology disciplines (Glanz et al., 2008).

What is established in the literature is that widespread confusion related to the term and practice of health education is related to the 'model' of practice. For instance, acute hospital settings commonly conduct their core business aligned to a biomedical paradigm. Clinical nurses and other related health care providers, in general, are focused on a practice model of prevention and treatment of illness, disease and disability. However, the trend of viewing patients as "potentially healthy" rather than "sick" is increasingly prevalent and more in line with the evolving paradigms of positive health (Rotegård et al., 2010; Salci et al., 2013; Whitehead, 2011a). Within the traditional paradigm, it is perhaps unsurprising that health education predominates involves certain activities, such as health information and/or patient education (Buchbinder et al., 2014; Khoury et al., 2015; Piper, 2008; Svavarsdottir et al., 2015). The continuing domination of the biomedical model, even in more modern times in clinical practice, may be due to the heightened awareness of epidemiological patterns of chronic diseases (Glanz et al., 2008). In addition, the advancement of technology in medicine is also an influence (Denham, 2017).

5.1. Implications for future theory development and research

This study adds to the scientific understanding of health education as a concept, providing a solid further foundation that reduces current theoretical and conceptual ambiguities in building a common reference point to facilitate effective health education communication between health care disciplines. The stated antecedents emphasize the need for nurses to be well trained and educated in health education in addition to being aware of its importance in health care delivery (Buchbinder et al., 2014; Whitehead, 2004, 2008). An increasing emphasis of the nursing curricula oriented to positive health and well-being and emphasizing the importance of the active involvement of individuals in line with their social environment is a critical requirement (Denham, 2017; Rotegård et al., 2010). Additional research focused on developing systematic methods for training on needs diagnoses and testing interventions' effectiveness can build upon this study (Tofthagen and Fagerstrøm, 2010).

5.2. Implications for clinical practice

Identifying and clearly defining health education's attributes has important clinical implications. Creating consensus on conceptual foundations raises awareness with regard to nurses' role as health educators (Diaz-Valencia, 2012; Piper, 2008; Svavarsdottir et al., 2015). Moreover, enhancing the clarity of the concept influences the effective implementation of this role in a variety of health-settings. There is a recognized need for the routine incorporation of health education activities in clinical, theory, policy and research practice (Whitehead, 2008). Health education is known to increase people's health literacy, health outcomes, personal satisfaction and overall quality of life. It provides necessary knowledge and skills to facilitate voluntary decision-making for behaviour change (Camillo et al., 2016; Canga et al., 2000; Pardavila-Belio et al., 2015). Subsequently, it has the potential to empower people to consciously bring about changes in their own social situations and communities (Piper, 2008; WHO, 2012).

5.3. Limitations

Although the search was conducted systematically, there is a possibility that relevant articles might have been missed. However, the most relevant databases in the area of health and nursing were used (Tofthagen and Fagerstrøm, 2010). The search revealed well-established authors in health promotion and health education across both the health and nursing fields. It is important to note that the exploration of the use and influence of health education across related health care disciplines was not examined, as the focus was only on nursing. According to Rodgers' method, this information can be considered secondary when a unique discipline is encompassed (Rodgers and Knafl, 2000).

6. Conclusions

This study seeks to clarify the concept of health education in nursing and provide a definition by way of Rodgers' concept analysis method. This in-depth analysis of health education attributes, antecedents and consequences is particularly relevant, as they add and build further understanding of the concept, potentially guiding a common reference to the term and facilitating further understanding as to how nurses and other health care providers can effectively apply it in a variety of settings.

Conflicts of interest statement

No conflicts of interest have been declared by the authors.

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